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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/854,174	05/11/2001	Vincent J. Zimmer	042390.P11188	7115

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EXAMINER

PERVEEN, REHANA

ART UNIT

PAPER NUMBER

2116

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/854,174

Applicant(s)

ZIMMER, VINCENT J.

Examiner

Rehana Perveen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner. *See 1/10/02*
- 10) ☒ The drawing(s) filed on 11 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3.4.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Datta, Patent No. 5,671,422, in view of Kimura et al, Patent No. 5,737,579.

As to claim 28, Datta teaches a motherboard on which an original set of firmware is stored, a memory operatively coupled to the motherboard in which a plurality of machine instructions are stored, and a processor linked in communication with the memory for executing the machine instructions (figure 1, col. 4 lines 25-48). Datta also teaches performing the operations of providing a mechanism to enable an event handler that is accessible to a hidden execution and storage mode of the processor but is not accessible to other operating modes of the processor, and executing the event handler in response to an event that causes the processor to be switched to the hidden execution and storage mode to service the event (abstract and col. 2 lines 1-23).

However, Datta does not expressly teach executing the machine instructions to enable a loading of an event handler that is not stored in an original set of firmware as

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supplied by an original equipment manufacture (OEM) of the computer system into the hidden memory space.

Kimura et al teach executing machine instructions to enable a loading of an event handler that is not stored in an original set of firmware as supplied by an original equipment manufacture (OEM) of the computer system into a hidden memory space that is accessible to a hidden execution and storage mode of the processor but is not accessible to other operating modes of the processor (col. 69 lines 30-39).

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Datta and Kimura et al because both are commonly directed to the SMM handler environment and Kimura et al's loading option of external SMM handler, when incorporated into Datta's system, would have enabled increased architectural flexibility by allowing a configuration with an outside bus arbiter to perform processor mode switching.

As to claim 29, Kimura et al teach the mechanism for enabling loading and execution of the event handler comprises providing an abstracted interface that enables a set of machine code corresponding to an event handler that is stored outside of any component(s) in which the original set of firmware is stored to be loaded into the hidden memory space, and redirecting an instruction pointer for the processor to execute the

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set of machine code to service the event while the processor is operating in the hidden execution and storage mode (abstract and col. 69 lines 30-39).

As to claim 30, Datta teaches the mechanism for enabling execution of the event handler comprises scanning for any firmware volumes that are materialized during a pre-boot process for the computer system to identify an existence of any firmware file containing an event handler that is compatible with the hidden execution and storage mode of the processor, loading the event handler into the hidden memory space, and redirecting an instruction pointer for the processor to execute the event handler to service the event while the processor is operating in the hidden execution and storage mode (col. 5 line 1 – col. 6 line 12).

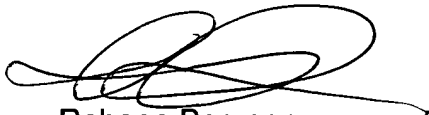
Claims 1-22 are directed to the method of system claims 28-30, and claims 23-27 are directed to the machine-readable medium of system claims 28-30. Kimura et al teach the system as set forth in claims 28-30. Therefore, Kimura et al also teach the method as set forth in claims 1-22. Further, Kimura et al teach the machine-readable medium as set forth in claims 23-27.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rehana Perveen whose telephone number is 703-305-8476. The examiner can normally be reached on 8:00am - 4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on 703-308-1159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Rehana Perveen', with a long horizontal flourish extending to the right.

Rehana Perveen
Primary Patent Examiner
Technology Center 2100